

### REMARKS

Claims 1-26 were pending. Claims 21-26 are canceled, claims 27-32 are added, and claim 1 is amended by way of this Amendment. No new matter is believed to be added. All pending claims 1-20 and 27-32 as amended are believed to be allowable over the references cited by the Examiner as discussed below. Accordingly, a Notice of Allowance for the present application is respectfully requested.

### Election/Restrictions

The undersigned hereby affirms election of Group I, claims 1-20. Claims 21-26 have been canceled. Applicant reserves the right to file the cancelled claims in a divisional patent application.

### Claim Objections

The Examiner objected to claim 1 because of the informalities in line 5. Claim 1 is amended to address the informality.

Withdrawal of the objection to claim 1 is respectfully requested.

### Amendment to Claim 1

Independent claim 1 is also amended to clarify the subject matter of the invention. In particular, independent claim 1 is amended to clarify that the interior surface for at least a portion of the thickness is unidirectional. Support for unidirectional flaring of the interior surface may be found in FIGS. 3, 5, and 7 as well as at p. 2, line 11, p. 6, line 31-p.7, line 1, and p. 7, lines 5-7, for example. Thus, no new matter is believed to be added.

### Rejection of Claims Under 35 U.S.C. §102(b)

#### Rejection of Claims Under 35 U.S.C. §102(b) as Being Anticipated by Beguin

Claims 1-5, 8, and 15-17 stand rejected under 35 U.S.C. 102(b) as being anticipated by Beguin (USPN 3,160,717).

As amended, independent claim 1 generally recites an earphone cushion with a first resilient ring having a thickness between opposite input and output faces and an opening therethrough defining an interior surface between the faces that flares unidirectionally outwardly for at least a portion of the thickness. The input face has associated structure for acoustically

coupling the opening to an output face of a speaker and the output face of the resilient ring is resiliently conformable to a lateral face of an auricle.

Beguin, on the other hand, fails to disclose or suggest that the output face of the resilient ring is resiliently conformable to a lateral face of an auricle, that the input face of the resilient ring has associated structure for acoustically coupling the opening to an output face of a speaker or that an interior surface between the faces of the resilient ring flares unidirectionally outwardly for at least a portion of the thickness, as recited in independent claim 1 as amended.

Beguin discloses an ear protector 10 with an ear cushion 22 configured to fit against the head 64 (FIG. 6 and col. 4, lines 44-48) and a conduit 36 that directly couples the speaker 50 to the ear canal 66 (col. 4, lines 62-72).

With respect to the output face of the resilient ring being resiliently conformable to a lateral face of an auricle as recited in independent claim 1, Beguin's ear cushion 22 is configured to fit against the head 64 (FIG. 6 and col. 4, lines 44-48) while nothing is configured to fit against a lateral face of the auricle 62. In particular, Beguin states that "the auricle of the ear 62 can fit comfortably *within the cup 12* through the aperture 20 and the cushion members 22 can fit comfortably *against the head 64*." (Col. 4, lines 44-48, emphasis added). In other words, Beguin's ear cushion 22 only contacts the head 64 and does not even come in contact with the auricle 62 and thus Beguin's ear cushion 22 is not and cannot be resiliently conformable to a lateral face of the auricle as recited in independent claim 1.

With respect to the input face having associated structure for acoustically coupling the opening to an output face of a speaker as recited in independent claim 1, Beguin explicitly states that "the coupling of the conduit passage [36] and the ear-canal [66] in airtight relation will provide very tight *acoustical coupling between the transducer diaphragm 50 and the ear-drum 68*." (Col. 4, lines 62-72, emphasis added). As the acoustic signals from the speaker (transducer diaphragm) 50 does not even pass through the opening defined by Beguin's ear cushion 64, Beguin's ear cushion 64 does not have any associated structure for acoustically coupling the opening to the speaker as recited in independent claim 1.

With respect to an interior surface between the faces of the resilient ring flaring unidirectionally outwardly for at least a portion of the thickness as recited in amended independent claim 1, Beguin's ear cushion 22, even if were considered to have any flaring out, is clearly shown to flare out bidirectionally, i.e. in both directions from the input to the output face and from the output to the input face. (See FIGS. 3 and 5-8).

As Beguin fails to disclose or render obvious many of the elements of the invention as claimed in independent claim 1 as discussed above, independent claim 1 as well as claims 2-5, 8, and 15-17 dependent therefrom are believed to be patentable over Beguin. Thus, withdrawal of the rejections of claims 1-5, 8, and 15-17 under 35 U.S.C. 102(b) as being anticipated by Beguin is respectfully requested.

**Rejection of Claims Under 35 U.S.C. §102(b) as Being Anticipated by Scalzo**

Claims 1, 10, and 12 stand rejected under 35 U.S.C. 102(b) as being anticipated by Scalzo (USPN 4,523,661).

As noted above, independent claim 1 generally recites an earphone cushion with a first resilient ring having a thickness between opposite input and output faces and an opening therethrough defining an interior surface between the faces that flares unidirectionally outwardly for at least a portion of the thickness. The input face has associated structure for acoustically coupling the opening to an output face of a speaker and the output face of the resilient ring is resiliently conformable to a lateral face of an auricle.

Scalzo discloses a helmet with large-cavity carcup assemblies 20, 22 each including an earphone cushion 64 that fits over the front of the earphone and couples the earphone to the car. (See FIGS. 2-4 and col. 4, lines 2-5). However, Scalzo fails to disclose or suggest that an interior surface between the faces of the resilient ring flares unidirectionally outwardly for at least a portion of its thickness. In particular, Scalzo is silent as to any shape or form of the interior surface between the faces of the earphone cushion 64, much less a unidirectional outward flaring. Rather, the earphone cushion 64 is repeatedly shown in FIGS. 2, 3 and 4 as having a straight, i.e., non-flaring, interior surface.

As Scalzo fails to disclose or render obvious all of the elements of the invention as claimed in independent claim 1, independent claim 1 as well as claims 10 and 12 dependent therefrom are believed to be patentable over Scalzo. Thus, withdrawal of the rejections of claims 1, 10 and 12 under 35 U.S.C. 102(b) as being anticipated by Scalzo is respectfully requested.

With regard to dependent claim 12, Scalzo does not disclose that the ear cushion 64 has a circumferential recess between its output face and the flange-retaining recess. FIGS. 5 and 7 in the specification of the subject application illustrate two examples of the circumferential recess at reference numbers 222 and 322, respectively. In contrast, Scalzo fails to disclose or suggest a

circumferential recess as recited in dependent claim 12. Thus, claim 12 is further believed to be allowable over Scalzo as Scalzo fails to disclose or suggest the circumferential recess as recited in claim 12.

**Rejections of Claims Under 35 U.S.C. §103(a)**

Claims 6, 7, and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Beguin in view of Holman (USPN 6,099,894). In addition, claims 18-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Beguin.

However, because Holman does not make up for the deficiencies of Beguin and because independent claim 1 from which claims 6, 7, 9, and 18-20 depend are believed to be allowable over Beguin, dependent claims 6, 7, 9, and 18-20 are believed to be allowable for at least the same or similar reasons as set forth above. Withdrawal of the rejections under 35 U.S.C. 103(a) is respectfully requested.

**New Claims 27-32**

New claims 27-32 are added by way of this Amendment. Independent claim 27 generally recites an earphone cushion with a first ring comprising microcapsules of a material capable of an endothermic phase change at a substantially constant temperature. The ring defines a thickness between opposing first and second faces and an opening therethrough defining an interior surface between the faces, the first face having associated structure for acoustically coupling the opening to an output face of a speaker and the second face being resiliently conformable to a lateral face of an auricle.

None of the cited references, taken either alone or in combination, discloses or suggests such a combination of elements for an earphone cushion. Applicants note that although Holman discloses gel-coated microcapsules, the cited references do not suggest the use of the microcapsules in an earphone having a ring with an opening and has associated structure to acoustically couple the opening to an output face of a speaker.

Furthermore, dependent claim 28 additionally recite that the interior surface of the opening flares out unidirectionally from the first face to the second face for at least a portion of the thickness. As discussed above, none of the cited references, taken alone or in combination, even discloses or suggests such an element.

Thus, new claims 27-32 are also believed to be allowable.

**CONCLUSION**

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

In the unlikely event that the transmittal letter accompanying this document is separated from this document and the Patent Office determines that an Extension of Time under 37 CFR 1.136 and/or any other relief is required, Applicant hereby petitions for any required relief including Extensions of Time and/or any other relief and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-1217 (Order No. 01-7035).

Respectfully submitted,



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